UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,794	09/22/2003	Keiko Shiraishi	115031	7273

25944 7590 07/16/2008

OLIFF & BERRIDGE, PLC
P.O. BOX 320850
ALEXANDRIA, VA 22320-4850

EXAMINER	
BLACKWELL, JAMES H	
ART UNIT	PAPER NUMBER
2176	

MAIL DATE	DELIVERY MODE
07/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,794	SHIRAISHI ET AL.	
	Examiner	Art Unit	
	James H. Blackwell	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 14-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-7 and 14-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/27/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to an amendment filed 03/12/2008.

Claims 1-7, and 14-23 are pending.

Claims 1-3 and 20 are independent claims.

Claims 17-23 are new claims.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the recited "*service list acquisition unit*," "*interface information acquisition unit*," "*linking information making unit*" and "*management unit*." of Claim 1. The Specification does not mention the term "*unit*" anywhere. Thus, there is no support or antecedent basis for the recited "*units*" that allows the meaning of the term to be ascertained, as required in 37 CFR 1.75(d)(1).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 14 and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 14 and 17:

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claim 1 recites a "*linking information making device*" that comprises a "*service list acquisition unit*," an "*interface information acquisition unit*," a "*linking information making unit*" and a "*management unit*." The examiner notes that the term "*unit*" is not mentioned a single time in the Specification of the present invention. Thus, one of ordinary skill in the art would have interpreted each of the recited "units" as being the software module that performs the associated function (e.g., acquiring a list, as recited in Line 2). Thus, the recited "*linking information making device*" comprises only software and is thus software per se.

Claims 14 and 17 merely recite further definitions of the previously-recited electronic data and/or additional functions of the previously-recited software modules. Thus, Claims 14 and 17 do not recite hardware components that would make the recited "*device*" statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 17-20, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable under Robles et al. (hereinafter Robles, U.S. Patent Application Publication No. 2002/0198904 filed 06/22/2001, published 12/26/2002) in view of Hansen et al. (hereinafter Hansen, U.S. Patent No. 6,407,820 filed 05/17/2000, issued 06/18/2002).

In regard to independent Claim 1, Robles discloses:

- *A linking information making device* (Abstract → describes a distributed document production system that provides a means to obtain information directly from available devices as well as to store such information in a database, and to allow for the creation and execution of workflows based on the device information obtained), *comprising:*
    - *a service list acquisition unit which acquires a service list expressing respective services which execute predetermined processings of document data, the respective services being provided by service processing devices* (Pg. 3, Paragraphs [0028], [0031-0035] → a services engine can retrieve information on available services directly from production devices using SNMP (Simple Network Management Protocol).

The information includes the particular services and options for those services. Robles also implies that instructions for generating user accessible controls pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s). This interpretation is based on what is optionally contained in a services database and the notion that the services engine can either obtain this information from the database or directly from the device(s)).

- *an interface information acquisition unit which acquires from the respective service processing devices pieces of interface information corresponding to the respective service processing devices* (Pg. 3, Paragraph [0028] → as noted above, Robles implies that instructions for generating user accessible controls (e.g., a GUI, which would presumably contain interface information since the GUI is controlling the device) pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s)).
- *the interface information including a method by which the predetermined processing is started* (Pg. 4, Paragraph [0039]; Figs. 10-13 → a print command is issued, and available devices are provided for selection. Once a given device(s) is/are selected, the services engine generates a user interface with user accessible controls for selecting services options,

etc. A production plan (i.e., workflow) is then generated. That a production plan is generated by the combination of services and their options, Robles implies that the interface information would have to have included information on how to execute each of the services since the production plan would not execute without such information).

- *a linking information making unit which makes linking information to be used for linking the predetermined processings based on the interface information which has been acquired by the interface information acquisition unit, and transmits the linking information, the linking information including information to be displayed on a screen of a one or more service processing devices and*

Robles allows a user to participate/interact with the system in the creation of a workflow, but uses an automated Plan generator 68 to take those user choices and actually generate a workflow file.

Thus, Robles fails to disclose a user interacting with a screen to generate a workflow and therefore fails to teach the limitation:

- *to be selected by a user operating the screen when the user instructs to start linking the predetermined processings*.

However, Hansen discloses … *to be selected by a user operating the screen when the user instructs to start linking the predetermined processings* (at least Col. 12, lines 28-61 → Hansen describes workflow management software tools that allow a user to interact with at least electronic workflows (i.e. *tickets*) using a

graphical user interface including saving, storing and associating workflows with documents as well as editing their (workflows) options. Visual feedback indicating such workflow manipulations are also indicated on the display for interpretation by the user).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles and Hansen as both inventions are related to document production using workflows. Adding the disclosure of Hansen allows for user interaction and selection of existing workflows as well as the generation of new workflows (modified existing workflows).

Robles also fails to disclose

- *a management unit which stores the transmitted linking information and further transmits the stored linking information to the one or more service processing devices for displaying on the screen based on a request from the service processing devices*.

However Hansen discloses *a management unit which stores the transmitted linking information and further transmits the stored linking information to the one or more service processing devices for displaying on the screen based on a request from the service processing devices* (at least Col. 10, lines 16-24 → Hansen describes that workflow management software also provides ODMA support for interfacing with document libraries. In addition, the provided ODMA support further extends the functionality of the document library to handle management, storage and archiving of compound documents and tickets (i.e.

workflows). This allows libraries of standardized tickets (*workflows*) to be created or facilitates updates and reprints of compound documents such as books. In other words, a user can retrieve stored workflows using the Graphical User Interface (GUI)).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles and Hansen as both inventions are related to document production using workflows. Adding the disclosure of Hansen allows for user interaction and retrieval/selection of existing workflows as well as the generation of new workflows (modified existing workflows).

Regarding independent Claims 2 and 3, Claims 2 and 3 merely recite a method, and program on a recording medium operable (executable) on the device of Claim 1. Thus, Robles in view of Hansen discloses every limitation of Claims 2 and 3, as indicated in the above rejection of Claim 1.

In regard to independent Claim 20, Robles discloses:

- *A computer-readable recording medium that stores a program for controlling a computer to execute a processing for making linking information* (Abstract → describes a distributed document production system that provides a means to obtain information directly from available devices as well as to store such information in a database, and to allow for the creation and execution of workflows based on the device information obtained)*, the program including instructions for controlling the computer to execute:*
- *acquiring pieces of service information expressing respective services which execute predetermined processings of document data, the respective services being provided by service processing devices* (Pg. 3, Paragraphs [0028], [0031-0035] → a services engine can retrieve information on available services directly from production devices using SNMP (Simple Network Management Protocol). The information includes the particular services and options for those services. Robles also implies that instructions for generating user accessible controls pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s). This interpretation is based on what is optionally contained in a services database and the notion that the services engine can either obtain this information from the database or directly from the device(s). These services are then displayed for the user)*;*

- *displaying the pieces of service information on a display* (Pg. 4, Paragarph [0039]; Fig. 10 → device services information is displayed to the user for selection)*;*

Robles allows a user to participate/interact with the system in the creation of a workflow, but uses an automated Plan generator 68 to take those user choices and actually generate a workflow file.

Thus, Robles fails to disclose a user interacting with a screen to generate a workflow and therefore fails to teach the limitation:

- *making linking information that links the predetermined processings as a workflow based on a user operation on the display;*

However, Hansen discloses *making linking information that links the predetermined processings as a workflow based on a user operation on the display* (at least Col. 12, lines 28-61 → Hansen describes workflow management software tools that allow a user to interact with at least electronic workflows (i.e. *tickets*) using a graphical user interface including saving, storing and associating workflows with documents as well as editing their (workflows) options. Visual feedback indicating such workflow manipulations are also indicated on the display for interpretation by the user).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles and Hansen as both inventions are related to document production using workflows. Adding the disclosure of Hansen allows for user interaction and selection of existing

workflows as well as the generation of new workflows (modified existing workflows).

Robles also fails to disclose:

- *storing a plurality of pieces of the linking information as a plurality of workflows;*

However, Hansen discloses *storing a plurality of pieces of the linking information as a plurality of workflows* (at least Col. 12, lines 28-61 → Hansen describes workflow management software tools that allow a user to interact with at least electronic workflows (i.e. *tickets*) using a graphical user interface including saving, storing and associating workflows with documents); and

transmitting the plurality of pieces of the linking information to one or more of the service processing devices so that the plurality of workflows are displayed on a screen of one or more of the service processing devices for receiving a user selection for the plurality of workflows (at least Col. 10, lines 16-24; Col. 12, lines 28-61 → Hansen describes that workflow management software also provides ODMA support for interfacing with document libraries. In addition, the provided ODMA support further extends the functionality of the document library to handle management, storage and archiving of compound documents and tickets (i.e. *workflows*). This allows libraries of standardized tickets (*workflows*) to be created or facilitates updates and reprints of compound documents such as books. In other words, a user can retrieve stored workflows using the Graphical User Interface (GUI)).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles and Hansen as both inventions are related to document production using workflows. Adding the disclosure of Hansen allows for user interaction and retrieval/selection of stored, existing workflows as well as the generation of new workflows (modified existing workflows).

In regard to dependent Claim 4, Robles discloses:

- *A document processing system, comprising:*
    - *the linking information making device according to claim 1 which acquires the service list transmitted from a search device and the pieces of the interface information from the service processing devices via the search device* (Pg. 3, Paragraph [0028] → describes a services engine (*a search device*) that obtains information from service devices directly, and is further capable of periodically updating that information)*, further comprising:*
        - *a plurality of service processing devices which provide services for executing predetermined processings of document data and transmit the pieces of the interface information to the search device* (Pg. 3, Paragraph [0028]; Fig. 8 → Fig. 8 depicts a plurality of production devices capable of providing services and transmitting services/capabilities to the services engine upon request).

- *the search device provided with:*
  - *a service information storage unit for storing the pieces of the interface information which have been transmitted from currently-available service processing devices* (Pg. 3, Paragraph [0028] → a services database is available to provide electronic storage to device services/options available on a network or elsewhere).
  - *a search unit for searching services corresponding to services, for which search has been requested, using the pieces of the interface information which have been stored in the service information storage unit* (Pg. 3, Paragraph [0028] → describes a services engine that retrieves (after locating) information on services directly, or alternatively obtains the information from the services database), and
  - *a transmission unit which transmits the service list based on the search results of the search unit* (Pg. 3, Paragraph [0031] → a device selector 60 queries services database 38 or devices 16 directly and identifies a device or devices 16 capable of providing the selected services. In other words, the devices are "searched" for, identified, and their available services, options, interface information is transmitted back to the system such that the interface generator 43, can generate a user interface with user accessible controls for selecting between the identified device or devices).

In regard to dependent Claim 5, Robles discloses:

- *the transmission unit of the search device transmit the service list …, to the linking information making device* (Pg. 3, Paragraph [0032] → Plan generator 68 is responsible for merging formatted production request 44 with selected services 46, as illustrated in Fig. 3. Device drivers 70 translate the production plan 44 into a specialized set of commands for each selected production device 16 handling production plan 44. The Plan Generator described in Robles is interpreted to perform the "linking" function as it merges the services/options and specific device interface information obtained by the services engine into a plan (workflow)).

In regard to dependent Claim 6, Robles discloses:

- *the service processing devices transmit pieces of input information and pieces of output information on services, service names, and service information location as the interface information* (at least Pgs. 2-3, Paragraphs [0027-0028], [0031] → service devices via SNMP transmit, at least upon request, information on their services as well as interface information, their location, and identification).

In regard to dependent Claim 7, Robles discloses:

- *interface information acquisition unit of the linking information making device acquires pieces of service information location for accessing the respective service processing devices, from the search device, and acquires pieces of*

interface information from the service processing devices based on pieces of the acquired service information location (Pg. 3, Paragraphs [0028], [0031] → the services engine includes a services locator 58, device selector 60. The services locator obtains services and interface information from each of the devices either via database or directly).

In regard to dependent Claim 17, Robles fails to disclose:

- *the management unit stores a plurality of the linking information as a plurality of workflows.*

However, Hansen discloses *the management unit stores a plurality of the linking information as a plurality of workflows* (at least Col. 10, lines 16-24 → Hansen describes that workflow management software also provides ODMA support for interfacing with document libraries. In addition, the provided ODMA support further extends the functionality of the document library to handle management, storage and archiving of compound documents and tickets (i.e. *workflows*). This allows libraries of standardized tickets (i.e. *workflows*) to be created or facilitates updates and reprints of compound documents such as books. In other words, a user can retrieve stored workflows using the Graphical User Interface (GUI)).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles and Hansen as both inventions are related to document production using workflows. Adding the disclosure of Hansen allows for user interaction and retrieval/selection of stored workflows as well as the generation of new workflows (modified existing workflows).

Regarding independent Claims 18 and 19, Claims 18 and 19 merely recite a method, and program on a recording medium operable (executable) on the device of Claim 17. Thus, Robles in view of Hansen discloses every limitation of Claims 18 and 19, as indicated in the above rejection of Claim 17.

In regard to dependent Claim 22, Robles fails to disclose:

- *the transmitting comprises transmitting the plurality of pieces of the linking information in response to a request from one or more of the service processing devices.*

However, Hansen discloses *the transmitting comprises transmitting the plurality of pieces of the linking information in response to a request from one or more of the service processing devices* (at least Col. 10, lines 16-24 → Hansen describes that workflow management software also provides ODMA support for interfacing with document libraries. In addition, the provided ODMA support further extends the functionality of the document library to handle management, storage and archiving of compound documents and tickets (i.e. *workflows*). This allows libraries of

standardized tickets (*workflows*) to be created or facilitates updates and reprints of compound documents such as books. In other words, a user can retrieve, and thereby invoke the transmittal of, stored workflows using the Graphical User Interface (GUI)).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles and Hansen as both inventions are related to document production using workflows. Adding the disclosure of Hansen allows for user interaction and retrieval/selection of existing workflows as well as the generation of new workflows (modified existing workflows).

In regard to dependent Claim 23, Robles discloses:

- *the service information includes a service list* (Pg. 3, Paragraphs [0028], [0031-0035] → a services engine can retrieve information on available services directly from production devices using SNMP (Simple Network Management Protocol). The information includes the particular services and options for those services. Robles also implies that instructions for generating user accessible controls pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s). This interpretation is based on what is optionally contained in a services database and the notion that the services engine can either obtain this information from the database or directly from the device(s)).

- *pieces of interface information corresponding to the respective service processing devices* (Pg. 3, Paragraph [0028] → as noted above, Robles implies that instructions for generating user accessible controls (e.g., a GUI, which would presumably contain interface information since the GUI is controlling the device) pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s)).

Claims 14-16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robles in view of Hansen, and in further view of Roche (U.S. Patent Application Publication No. 2004/0039647 filed 07/18/2001, Published 02/26/2004).

In regard to dependent Claim 14, Robles and Hansen fail to disclose:

- *the linking information is a file in an XML format.*

However, Roche discloses *the linking information is a file in an XML format* (Figs. 14-18 → Fig. 14 depicts an XML-based Work Order containing, in addition to other information such as what to print and where, how to print (1402). This is further described in Fig. 17 and represents the parameters needed by a device (and presumably obtained by the system from the device) embodied in an XML format).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles, Hansen and Roche since all three inventions are related to facilitating the printing of content to devices. Adding the disclosure of Roche provides the benefit of using the implicit structure of XML to describe aspects of the overall print job.

Regarding dependent Claims 15, 16 and 21, Claims 15, 16 and 21 merely recite a method, and programs on recording mediums operable (executable) on the device of Claim 14. Thus, Robles in view of Hansen and Roche discloses every limitation of Claims 15, 16 and 21, as indicated in the above rejection of Claim 14.

Response to Arguments

Applicant's arguments, see remarks, filed 03/21/2008, with respect to the 35 U.S.C. 102(e) rejection(s) of claim(s) 1-7 under Robles have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made under Robles in view of Hansen. Hansen allows the user to interact and modify/change existing workflows and to create new workflows by modifying (editing) existing ones.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Blackwell whose telephone number is (571)272-4089. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James H. Blackwell
07/09/2008

/Doug Hutton/
Doug Hutton
Supervisory Primary Examiner
Technology Center 2100